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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

JAN 27 1993
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE CLERK

In the Matter of)

Redevelopment of Spectrum to)
Encourage Innovation in the Use of)
New Telecommunications)
Technologies)

ET Docket No. 92-9

RM-7981

RM-8004

REPLY COMMENTS

GTE Service Corporation, on behalf of its domestic, affiliated, telephone, equipment and service companies ("GTE"), hereby offers its Reply Comments to the Comments submitted by other parties in response to the Commission's Further Notice of Proposed Rule Making ("FNPRM").¹ GTE is primarily concerned with those parties who have offered recommendations that would impact the current satellite users in the 4 GHz band.

DISCUSSION

GTE opposes 4 GHz band restructuring and concatenation of channels that will adversely impact users of the satellite services.

GTE is particularly concerned with the Comments filed by Northern Telecom, Harris Corporation, MCI and the Telecommunications Industry Association ("TIA"), with respect to permitting concatenation of 20 MHz channels, to create 40 MHz wide channels for terrestrial microwave services in the 4 GHz Common Carrier band. The proposed 40 MHz channels would

¹ By an Order Extending Time For Reply Comments, released January 7, 1993, DA 93-5, the Office of Engineering and Technology extended the date for Reply Comments until January 27, 1993.

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operate co-channel with satellite transponder downlink services and would totally eliminate the interference isolation between terrestrial and satellite services, that is an inherent feature of the 20 MHz channelization plan. The creation of 40 MHz wide channels would, therefore, have the same devastating effects on satellite downlink services as the narrowband channels, advocated by the proponents of band restructuring.

GTE has no disagreement with any of the 20 MHz channel plans that have been proposed for the 4 GHz band, but must object to the concatenation of channels, as well as to any restructuring of the band that would lead to a significant reduction of the current 10 MHz frequency offset between terrestrial and satellite frequency plans.² In their comments to the Commission, GTE and other satellite services providers have adequately described the adverse impact that a change in the 4 GHz frequency plan would have on satellite services. GE American Communications, Incorporated has termed the proposal "a blueprint for disaster."

GTE, therefore, again urges the Commission to retain the existing 20 MHz channelization plan, or to adopt an alternate plan that would retain -- to the greatest extent possible -- a 10 MHz frequency offset in order to best

² GTE has reviewed the comments submitted by AT&T to this FNPRM which contain a proposal to restructure the 4 GHz band into narrowband channels. GTE submits that the AT&T approach would have the same adverse impact on 4 GHz satellite downlink operations as the other restructuring proposals for this band. Although AT&T has satellite operations, it may not have fully considered the impact that its proposal would have on 4 GHz satellite downlinks. Other satellite carriers have attested to the detrimental impact that such restructuring would have on 4 GHz downlink operations. (See Comments of GE Americom Communications at 6 and Hughes Communications Galaxy, Inc., at 2.)

accommodate the needs of satellite service providers and their customers as well as terrestrial service providers.

Satellite earth stations need special interference protection rules if Automatic Transmitter Power Control is going to be used.

GTE is also concerned about the recommendations set forth by Harris Corporation to modify Parts 21 and 94 of the Commission's rules to accommodate Automatic Transmitter Power Control ("ATPC") systems. The proposed rule changes do not recognize that satellite earth stations provide very high service availability with very low link margins and that they will, therefore, need interference protection above that afforded terrestrial stations.

Contrary to terrestrial stations, satellite earth stations do not have any mechanism to combat the increased interference levels from ATPC systems and cannot accept service degradation for 0.1 percent (8 hours and 45 minutes) annually. Any formal revision of the rules must recognize that satellite earth stations may have to be protected from the maximum interference power, rather than the nominal interference power of ATPC systems. GTE believes that the rules governing the use of ATPC systems can best be formulated by the Commission, with inputs from the frequency coordination community and with a balanced view toward the needs of all users within the shared frequency bands.

GTE agrees that prior coordination should apply to all shared bands and harmonized interference criteria are in the public interest.

In its Comments at 6-8, GTE advocated that Common Carrier coordination procedures be used initially for common carrier bands and Private procedures be used initially for Private bands, with the FCC's goal being to harmonize the procedures to a single procedure. Many parties have advocated

that the FCC change its proposal and require that Common Carrier coordination procedures be used for all shared bands even initially.³ GTE concurs with these suggestions. Similarly, GTE agrees with those parties who also advocate for harmonized interference criteria in the shared bands.

Many parties support GTE's other issues.

In its Comments GTE also advocated access to Government bands, upgraded antenna performance, and grandfathering of established frequency plans in the higher bands. A review of the record demonstrates that other parties also support each of these points. AT&T, EMI, American Personal Communications, Harris et al., Motorola, NSMA, Northern Telecom, TIA, USTA, and UTC all agree with GTE that the FCC should pursue discussions with the National Telecommunications and Information Administration ("NTIA") to gain access to the 2 GHz government band for displaced 2 GHz users. There is also support in the record for GTE's position on grandfathering existing frequency plans⁴ and upgrading antennas.⁵ The Commission should include both of these items in any final rules.

³ For example, see AT&T at 3 n. 3; Comsearch at 12-17; Harris et al. at 12-17; National Spectrum Managers Association ("NSMA") at 6; TIA at 13; United States Telephone Association ("USTA") at 5-7. Even the private band users seem to agree. See Utilities Telecommunications Council ("UTC") at 10.

⁴ See Bell Atlantic at 1-3; Comsearch at 11; MCI at 6; NSMA at 4; USTA at 4.

⁵ See AT&T at App. E, 1; Comsearch at 20; MCI at 2; USTA at 7.

CONCLUSION

In its efforts to establish new frequency plans and rechannelization of higher bands to accommodate relocated 2 GHz incumbents, the Commission must ensure that the incumbents of the higher bands are not harmed. Many of the proposals offered by various parties could have a significant adverse impact on satellite services that operate in the 4 GHz band. The satellite service providers, including GTE, have identified these concerns for the Commission. Any final rules must not only accommodate the 2 GHz incumbents, they must also accommodate the incumbents of the higher bands. The final rules for the higher bands should use common carrier type prior coordination, harmonized interference criteria, improved antennas, and allow for grandfathering of existing frequency plans.

Respectfully submitted,

GTE Service Corporation,
on behalf of its domestic, affiliated,
telephone, equipment and service
companies

By: 

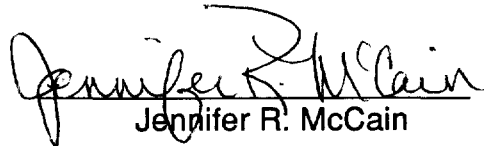
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January 27, 1993

Their Attorney

Certificate of Service

I, Jennifer R. McCain, hereby certify that copies of the foregoing "Reply Comments" of GTE have been mailed by first class United States mail, postage prepaid, on the 27th day of January, 1993 to all parties of record.


Jennifer R. McCain